



LOYAL PUBLICATION SOCIETY,  
863 BROADWAY,

*No. 48.*

RESOURCES OF THE UNITED STATES,

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REPORT

TO THE

*International Statistical Congress*

AT BERLIN,

BY SAMUEL B. RUGGLES,

Delegate from the United States of America:

WITH THE

ACCOMPANYING COMMUNICATION TO THE STATE DEPARTMENT

*SEPTEMBER 14th, 1863.*



NEW YORK:

PUBLISHED BY THE LOYAL PUBLICATION SOCIETY.

1864.



## REPORT.

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DEPARTMENT OF STATE, }  
Washington, January 18, 1864. }

I transmit to the Senate, in answer to their resolution of the 14th instant, a copy of the report on the resources of the United States, presented to the International Statistical Congress at Berlin, in September last, by the Hon. Samuel B. Ruggles, together with a copy of his letter to the Department of State, transmitting the report.

WILLIAM H. SEWARD.

The SENATE of the United States.

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*Mr. Ruggles to Mr. Seward,*

BERLIN, September 14, 1863.

SIR,—In pursuance of your instructions accompanying the appointment of the undersigned as representative of the United States of America at the International Statistical Congress at Berlin, in September instant, he embarked for Europe in the first German steamer after receiving his commission, and reached Berlin, after some detention on the Atlantic, on the afternoon of the 6th of September. No business of importance had been transacted in the Congress up to that time, except the presentation of the credentials of the delegates.

On the 7th of September, the credentials of the undersigned were presented and approved, at which time representatives

from the following countries, stated in alphabetical order, had been duly admitted, viz :

The United States of America ; Anhalt-Dessau ; Austria ; Baden ; Bavaria ; Belgium ; the Danubian Provinces ; Denmark ; France ; Frankfort ; Great Britain ; Hamburg ; Hanover ; Holland ; Holstein ; Hesse-Cassel ; Hesse-Darmstadt ; Italy ; Lubeck ; Mecklenburg-Schwerin ; Norway ; Oldenburg ; Portugal ; Prussia ; Russia ; Saxe-Coburg ; Saxe-Weimar ; Saxony ; Spain ; Sweden ; Switzerland ; Turkey ; and Wurtemberg.

The representatives of most of the nations above specified made reports to the Congress on the statistics of their respective countries, which will be duly published in German and in French, in the official proceedings or "*Compte Rendu*" of the Congress. In general, the proceedings and debates were in the German language, but to some extent in French and English.

Through some accidental and unintentional omission, none of the States of South America, or of Central America, sent delegates to the Congress, although Brazil, especially, had been represented in preceding sessions of the Congress. The name of the undersigned was erroneously entered in the printed and published lists as delegate from "*North America*," but on his application the error will be corrected in the official report of the proceedings.

On Friday, the 11th of September, being the sixth day of the session, a statistical report was presented to the Congress by the undersigned, in behalf of the United States of America, of which a copy is herewith transmitted.

It is proper to state that the composition and character of the Congress, as shown by its proceedings and published reports at the preceding sessions, were merely "statistical," and in no respect economical or political, rendering it proper and necessary to refrain in the report from any speculations or deductions as

to the practical use or employment of the resources to be statistically exhibited, or any political discussion of the character, conduct or possible result of the pending insurrection against the Government of the American Union ; but rather to present the cardinal elements of its material strength and resources, past and present, in such arithmetical and statistical form as should furnish, of itself, to the Congress and the countries therein represented, sufficient elements for any necessary conclusions.

Again, it was desirable and necessary, for the purpose of securing the publication and circulation, to any considerable extent, of such a statement, to condense the facts as far as practicable, to select only the most prominent, and to seek, by a well-defined outline, to present the subject clearly and distinctly.

Keeping these considerations in view, the report was therefore confined mainly to the four cardinal elements of our national strength, embraced under the heads—Territory ; Population ; Agricultural Production ; and Precious Metals. It is not denied that other branches, though comparatively less important, might have been added ; but under the circumstances, those presented were thought sufficient for the purpose.

In view of the insurrection still affecting the industry and products of a certain portion of the Union, and rendering it difficult to state or estimate their present value with any statistical accuracy, they were not embraced in the report to the present Congress, under the belief that the full restoration of tranquillity before the next session, in 1865, will then enable the representative of the United States to fully supply the deficiency.

The present session has been signalized by the adoption of important resolutions in respect to a uniform system of weights, measures and coins, for the use of the civilized world, and materially affecting the United States of America. A large Com-

mission, embracing representatives of high attainments, from fourteen different nations and countries, was instituted at the Congress of 1860, held in London, to report a system for consideration at the present session. The undersigned, on taking his seat in the body, was invited, in behalf the United States, to confer and unite with that Commission in its proposed and forthcoming report. A draft of that report had been printed, presenting, in review, the different nations which had adopted, or were disposed to adopt, the metric system of weights and measures, but in which it was stated that "the *Confederate States of America* have expressed a desire to introduce the metric system of weights and measures." The undersigned, on perceiving the statement, protested at once against its propriety, or its admission into the report, on the ground that the "Confederate States," so called, had no separate, national lawful existence, but still formed integral portions of the United States of America. The objection was acquiesced in, and the words in question were modified so as to read, "Some of the States of America have expressed a desire," &c., &c. The statement is known to be true in respect to some of the States of South America, and possibly as to some of the States of our American Union.

The propositions presented by that Commission to the Congress in respect to weights, measures and coins, looking to an eventual change in the weight of the British sovereign and of the American dollar to reduce them to even multiples of the franc, with the modifications which these propositions underwent in the Congress, are of so much importance and gravity, that the undersigned will require some little time for reporting them fully, with the necessary accompanying documents, to the Government of the United States. He will seek to do so, with all practicable despatch, after his return to America. The subject necessarily embraces the grave and difficult question of the relative value of gold and of silver, present and prospective, and

the proper adjustment of the coins of both metals, to keep pace with the fluctuations in their production and supply. For this purpose, the undersigned thought it necessary to propose, at the conclusion of the report on the metalliferous regions of the United States, that the subject of the production of gold and silver should be investigated by a Commission to be instituted by the International Statistical Congress; but on full consideration by the Section to which the subject was referred, it was decided, and perhaps properly, that the investigation could not be properly made by the Congress, which was statistical and not economical in its aims, and that the necessary inquiry might better be left to the governments of the three great gold-producing countries, being the United States; Great Britain in respect to Australia, New Zealand and British America; and Russia; and more especially as the inquiry, to be of any practical value, must be conducted under the authority and direction of those respective governments. Meanwhile, the decided opinion has been expressed by the delegates in the present Congress from Great Britain and from Russia, that the necessary inquiries on a subject so important to the currency of the world, will be prosecuted by those governments with all proper efficiency and despatch.

During the session of the present Congress a resolution was passed, on motion of Professor Schubert, of the University of Konigsburgh, that it was "advisable, and very useful to the general interests of statistical science, that of all official works and communications published by statistical bureaus, one copy shall be given to all the universities and high academies of the states of Europe, to be preserved in their libraries." A motion made by the undersigned, at a subsequent day, and seconded by Professor Schubert, was unanimously passed by the Congress, that the resolution be modified and enlarged "so as to include the public libraries in six of the principal cities of the United



States of America. to be designated by the State Department at Washington.”

The Congress adjourned on the 11th of September, after having received the marked hospitality and consideration of the government of Prussia, and of the inhabitants of Berlin.

Of the period of thirty days after the adjournment allowed to the undersigned for returning to the United States, he will employ the first two weeks in visiting Russia, to collect the statistics of the product of gold in that country ;—for which purpose the representatives of that government in the Congress, and also the Russian Minister at Berlin, have courteously afforded him important facilities.

The undersigned has the honor to remain, with high respect,  
your obedient servant,

SAMUEL B. RUGGLES.

His Excellency WILLIAM H. SEWARD,  
*Secretary of State, &c., &c., &c.*

NOTE.

The undersigned, on the 21st of December, 1863, transmitted to the State Department the Supplemental Report referred to in the preceding communication, in respect to the proceedings of the International Statistical Congress, at Berlin, on the subject of “UNIFORM WEIGHTS, MEASURES AND COINS.” That Report, when printed, will be published separately.

S. B. RUGGLES.

# International Statistical Congress at Berlin.

VI. SESSION.

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SIXTH DAY'S SESSION.

SEPTEMBER 11th, 1863.

## Report from the United States of America.

Mr. Samuel B. Ruggles, Delegate from the United States of America, presented the following Report :

*Mr. President and Gentlemen of the*

*International Statistical Congress :*

The Government of Prussia having specially requested, through its Minister at Washington, his Excellency the Baron Gerolt, that the Government of the United States of America should send a representative to the International Statistical Congress to convene at Berlin on the 6th of September, 1863, the President of the United States, on the 14th of August, appointed the undersigned to that office. The session of the Congress being so near at hand, the undersigned was necessarily obliged to embark for Europe without delay, and was thus prevented from collecting, in due season, as large a portion as could have been desired, of the numerous documents and publications illustrating the statistics of the United States. Much important information, though often wanting in classification and arrangement, is embraced in various official papers issued under public authority, both National and State, and also by Boards of Trade and other voluntary societies whose labors are more or less statistical.

Attempts have been made to impart to American statistics, more of an analytical and scientific character, by means of official Bureaux to be specially organized for the purpose. The State of Ohio, some years since, under the administration of Governor Chase, the present Secretary of the Treasury of the United States, established a Bureau of Statistics, as one of the organs of the State government, which was committed to the charge of Mr. Mansfield, whose copious and instructive Annual Reports, fully justify the selection: while far away, in the remote interior, beyond the great chain of Lakes, the infant State of Minnesota, with a single exception the youngest in the American Union, containing by the census of 1860 but 173,000 inhabitants clustered around the head waters of the Upper Mississippi, and more than fifteen hundred miles from the Atlantic, established almost at the moment of its birth, a Bureau of Statistics. Two of the Annual Reports of its able Commissioner of Statistics, Mr. Wheelock, are now submitted to the inspection of the International Statistical Congress, as affording reasonable ground of hope that, in due time, America may at least approach in scientific accuracy and philosophical arrangement, the more mature and perfect performances of the statisticians of Europe.

The Congress of the United States has not yet established a distinct Bureau of Statistics, although repeatedly recommended and urged to do so; but in taking the census of inhabitants, required by the National Constitution at intervals not exceeding ten years, the practice has been gradually introduced of superadding, by special direction of Congress, inquiries, more or less extensive, in regard to various branches of industry and production, and recently embracing social statistics to a moderate extent—so that the compend of the census of 1860, herewith submitted to the International Statistical Congress, will be found to contain a considerable mass of statistical information illustrating the material and, to some extent, the social and moral condition

of the nation. Under the limited powers conferred by Congress, the active and intelligent officers who have successively filled the office of Superintendent, and particularly Mr. Kennedy, who participated in one or more of the previous sessions of the International Statistical Congress, have earnestly exerted their best efforts to render the inquiries authorized by law, useful not only to the country, but to the cause of statistical science. It is confidently believed that the enlightened labors of the present body, may do much to induce the legislative authorities of the United State to recognise a competent Bureau of Statistics as a national necessity, and thereby place their country on an equality, in that respect, with the most intelligent nations of the world.

Even then, some time must elapse, before it will fully attain that power of acute, comprehensive and thorough analysis in the various branches of statistical inquiry, which has so distinguished the eminent European statisticians, in their valuable labors in the International Statistical Congress during the present and the preceding sessions.

It is cause for general congratulation that those who conduct the public affairs of nations have become generally convinced, that a State cannot be wisely or safely governed, without an accurate knowledge of quantities. Abstract theories and historical traditions doubtless have their use and their proper place, but statistics are the very eyes of the statesman, enabling him to survey and scan with clear but comprehensive vision, the whole structure and economy of the body politic—to adjust, in finest harmony all its varied functions—to regulate and invigorate the healthful circulation of every artery and vein, from the central, vital trunk to the most remote and delicate articulation.

Not only so. In this modern world where steam has abolished space, the statesman, to deserve the name, must carefully survey the statistics of all the nations that commerce can ap-

proach, so that with nice and skillful hand, he may adapt the administration of his particular government to the due measure of its comparative capacities and powers.

It is under the conviction, that this new-born, modern "solidarity of nations" renders the statistics of each important to all, that the undersigned, in behalf of the United States of America, now ventures briefly to invite the attention of the International Statistical Congress, to some of the most prominent features exhibited by the compend of the census of 1860, now before this body, and especially to the evidence which it furnishes, of the rate and extent of material progress of the human race in that portion of the New World, committed by Providence to the care of the American Union. The exhibition will certainly furnish to some extent the means of statistical comparison with other portions of the world, and thereby enable the International Statistical Congress, in due time, to discharge what may become a very important and world-wide duty, in classifying the results from the reports of individual countries, and thus to present in scientific form the prominent and distinctive features of the comparative anatomy of nations.

Nor is it to be feared that such a classification or comparison could ever be deemed useless or invidious. On this point the present body fortunately is able to refer to the highest authority. The impressive words, in the opening address of the late Prince Albert,—who deemed it no derogation from his eminent rank as the royal consort of the British Sovereign, to preside personally over your deliberations, and whose untimely death is mourned in both hemispheres as a loss to the human race,—now come to us with solemn earnestness.

In the noble language of that truly exalted Prince, such comparisons will only "prove to us afresh in figures, what we know already from feeling and experience—how dependent the different nations are upon each other, for their progress—for

“their moral and material prosperity—and that the essential condition of their mutual happiness, is the maintenance of peace and good will among each other. Let them then be rivals, but rivals in the noble race of social improvement, in which, although it may be the lot of one to arrive first at the goal, yet all will equally share the prize—all feeling their own powers and strength increase in the healthy competition.”

The compend of the census of 1860, and other official documents now submitted to the International Statistical Congress, will establish the following cardinal facts, in respect to the territory, population, and progress in material wealth of the United States of America :

I. The territorial area of the United States, at the peace of 1783, then bounded west by the Mississippi river, was 820,680 square miles, about four times that of France, which is stated to be 207,145 exclusive of Algeria. The purchase from France of Louisiana, in 1804, added to this area 899,680 square miles. Purchases from Spain and from Mexico, and the Oregon treaty with England, added the further quantity of 1,215,907 square miles ; making the total present territory 2,936,166 square miles, or 1,879,146,240 acres.

Of this immense area, possessing a great variety of climate and culture so large a portion is fertile, that it has been steadily absorbed by the rapidly increasing population. In May last, there remained undisposed of and belonging to the Government of the United States 964,901,625 acres.

To prevent any confusion of boundaries, the lands are carefully surveyed and allotted by the Government, and are then granted gratuitously to actual settlers, or sold for prices not exceeding a dollar and a quarter per acre to purchasers other than settlers. It appears by the Report of the Commissioner of the General Land Office, a copy of which is herewith furnished,

that the quantity surveyed and ready for sale, in September, 1862, was 135,142,999 acres. The Report also states, that the recent discoveries of rich and extensive gold fields in some of the unsurveyed portions, are rapidly filling the interior with a population whose necessities require the speedy survey and disposition of large additional tracts. The immediate survey is not however, of vital importance, as the first occupant practically gains the pre-emptive claim to the land after the survey is completed. The cardinal, the great continental fact, so to speak, is this, that the whole of this vast body of land is freely open to gratuitous occupation, without delay or difficulty of any kind.

II. The population of the United States, as shown by the Census of 1860, was 31,445,080, of which number 26,975,575 were white, and 4,441,766 black, of various degrees of color—of the blacks 3,953,760 being returned as slaves. Whether any, or what proportion, of the number are hereafter to be statistically considered as “Slaves” depends upon contingencies, which it would be premature at the present time to discuss.

The increase of population since the establishment of the Government, has been as follows :

1790,	3,929,827			
1800,	5,305,937	.....	increase	35.02 per cent.
1810,	7,239,814	.....	“	36.45 “
1820,	9,638,191	.....	“	33.13 “
1830,	12,866,020	.....	“	33.49 “
1840,	17,069,453	.....	“	32.67 “
1850,	23,191,876	.....	“	35.87 “
1860,	31,445,080	.....	“	35.59 “

This rate of progress, especially since 1820, is owing, in part, to immigration from foreign countries

There arrived in the 10 years :

From 1820 to 1830 .....	244,490
“ 1830 to 1840 .....	552,000
“ 1840 to 1850 .....	1,558,300
“ 1850 to 1860 .....	2,707,624
<b>Total.....</b>	<b>5,062,414</b>

being a yearly average of 126,560 for the forty years, and 270,762 for the last ten years.

The disturbances in the United States, caused by the existing insurrection, and commencing in April, 1861, have temporarily and partially checked this current of immigration, but during the present year it is again increasing.

The records of the Commissioners of Emigration of New York show that the arrivals at that port alone have been—

	From Ireland.	From Germany.	Total including all other countries.
1861 .....	27,754	27,159	65,529
1862 .....	32,217	27,740	76,306
1863 .....	64,465	18,724	about 98,000

(up to August 20th, 7½ months.)

The proportions of the whole number of 5,062,414 arriving from foreign countries, in the forty years from 1820 to 1860, were as follows :

From Ireland .....	967,366	
England .....	302,665	
Scotland .....	47,800	
Wales .....	7,935	
Great-Britain and Ireland	1,425,018	
	<hr/>	2,750,784
From Germany .....	1,546,976	
Sweden .....	36,129	
Denmark and Norway ...	5,540	
	<hr/>	1,588,145



From France.....	208,063	
Italy .....	11,302	
Switzerland .....	37,732	
Spain.....	16,245	
British America.....	117,142	
China (in California almost exclusively).....	41,443	
All other countries, or un- known.....	291,558	
	<hr/>	723,485
		<hr/>
		5,062,414

It is not ascertainable how many have returned to foreign countries, but they probably do not exceed a million.

If the present partial check to immigration should continue, though it is hardly probable, the number of immigrants for the decade ending in 1870, may possibly be reduced from 2,707,624 to 1,500,000.

The ascertained average of increase of the whole population in the seven decades from 1790 to 1860, which is very nearly  $33\frac{1}{3}$  per cent. or one-third for each decade, would carry the present numbers ..... 31,445,080  
by the year 1870 to..... 41,926,750

From which deduct for the possible diminution of  
immigrants as above..... 1,207,624  
there would remain..... 

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40,719,126

Mr. Kennedy, the experienced Superintendent of the Census, in the Compend, published in 1862, at page 7, estimates the population of 1870 at 42,318,432, and of 1880, at 56,450,241.

The rate of progress of the population of the United States has much exceeded that of any of the European nations. The experienced statisticians in the present Congress can readily furnish the figures precisely showing the comparative rate.

## The population of France in

1801	was	.....	27,349,003
1821	"	.....	30,461,875
1831	"	.....	32,569,223
1841	"	.....	34,230,178
1851	"	.....	35,283,170
1861	"	.....	37,472,132

being about 37 per cent. in the sixty years. It does not include Algeria, which has a European population of 192,746.

The population of Prussia has increased, since 1816, as follows :

1816	.....	10,319,993
1822	.....	11,664,133
1834	.....	13,038,970
1840	.....	14,928,503
1849	.....	16,296,483
1858	.....	17,672,609
1861	.....	18,491,220

being at the rate of 79 per cent. in forty-five years.

The population of England and Wales was, in

1801	.....	9,156,171
1811	.....	10,454,529
1821	.....	12,172,664
1831	.....	14,051,986
1841	.....	16,035,198
1851	.....	18,054,170
1861	.....	20,227,746

Showing an increase of 121 per cent. in the sixty years, against an increase in the United States, in sixty years, of 593 per cent.

III. The natural and inevitable result of this great increase

of population, enjoying an ample supply of fertile land, is seen in a corresponding advance in the material wealth of the people of the United States. For the purpose of State taxation, the values of their real and personal property are yearly assessed by officers appointed by the States. The assessment does not include large amounts of property held by religious, educational, charitable and other associations exempted by law from taxation, nor any public property of any description. In actual practice, the real property is rarely assessed for more than two-thirds of its cash value, while large amounts of personal property, being easily concealed, escape assessment altogether.

The assessed value of that portion of property which is thus actually taxed, increased as follows :

In 1791 (estimated) .....	\$750,000,000
1816 (estimated) .....	1,800,000,000
1850 official valuation.....	7,135,780,228
1860 do .....	16,159,616,068

showing an increase in the last decade alone of \$9,023,835,840.

A question has been raised, in some quarters, as to the correctness of these valuations of 1850 and 1860, in embracing in the valuation of 1850 \$961,000,000, and in the valuation of 1860 \$1,936,000,000, as the assessed value of slaves, insisting that black men are persons and not property; and should be regarded, like other men, only as producers and consumers. If this view of the subject should be admitted, the valuation of 1850 would be reduced to..... \$6,174,780,000

and that of 1860 to ..... 14,223,618,068

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leaving the increase in the decade..... \$8,048,825,840

The advance, even if reduced to \$8,048,825,840, is sufficiently large to require the most attentive examination. It is an in-

crease of property over the valuation of 1850 of 130 per cent., while the increase of population in the same decade was but 35.59 per cent. In seeking for the cause of this discrepancy, we shall reach a fundamental and all important fact which will furnish the key to the past and to the future progress of the United States. It is the power they possess, by means of canals and railways, to practically abolish the distance between the sea-board and the wide-spread and fertile regions of the interior, thereby removing the clog on their agricultural industry, and virtually placing them side by side with the communities on the Atlantic. During the decade ending in 1860, the sum of \$413,541,510 was expended within the limits of the interior central group known as the "food-exporting States," in constructing 11,212 miles of railway, to connect them with the sea-board. The traffic receipts from those roads were :

In 1860	.....	\$31,335,031
" 1861	.....	35,305,509
" 1862	.....	44,908,405

The saving to the communities themselves in the transportation, for which they thus paid \$44,908,405, was at least five times that amount, while the increase in the exports from that portion of the Union, greatly animated not only the commerce of the Atlantic States carrying those exports over their railways to the sea-board, but the manufacturing industry of the Eastern States, that exchange the fabrics of their work-shops for the food of the interior.

By carefully analyzing the \$8,048,825,840, in question, we find that the six manufacturing States of New England received \$735,754,244 of the amount : that the middle Atlantic or carrying and commercial States, from New York to Maryland inclusive, received \$1,834,911,579 ; and that the food-producing interior itself, embracing the eight great States of Ohio, Indi-

ana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, and Missouri, received \$2,810,000,000. This very large accession of wealth to this single group of States is sufficiently important to be stated more in detail. The group, taken as a whole, extends from the western boundaries of New York and Pennsylvania to the Missouri river, through fourteen degrees of longitude, and from the Ohio river north to the British dominions, through twelve degrees of latitude. It embraces an area of 441,167 square miles, or 282,134,688 acres, nearly all of which is arable and exceedingly fertile, much of it in prairie and ready at once for the plough. There may be a small portion adjacent to Lake Superior unfit for cultivation, but it is abundantly compensated by its rich deposits of copper and of iron of the best quality.

Into this immense natural garden in a salubrious and desirable portion of the temperate zone, the swelling stream of population, from the older Atlantic States and from Europe, has steadily flowed during the last decade, increasing its previous population from 5,403,595 to 8,957,690, an accession of 3,554,095 inhabitants gained by the peaceful conquest of Nature, fully equal to the population of Silesia which cost Frederick the Great the Seven Years War, and exceeding that of Scotland, the subject of struggle for centuries.

The rapid influx of population into this group of States increased the quantity of the "improved" land, thereby meaning farms more or less cultivated, within their limits, from 26,680,361 acres in 1850 to 51,826,395 acres in 1860, but leaving a residue yet to be improved of 230,308,293 acres. The area of 25,146,054 acres thus taken in ten years from the prairie and the forest, is equal to seven-eighths of the arable area of England, stated by its political economists to be 28,000,000 of acres.

The area embraced in the residue will permit a similar operation to be repeated eight times successively, plainly demonstrating the capacity of this group of States to expand their present

population of 8,957,690 to at least thirty, if not forty millions of inhabitants, without inconvenience.

The effects of this influx of population in increasing the pecuniary wealth, as well as the agricultural products of the States in question, are signally manifest in the census. The assessed value of their real and personal property, ascended from \$1,116,000,000 in 1850, to \$3,926,000,000 in 1860, showing a clear increase of \$2,810,000,000. We can best measure this rapid and enormous accession of wealth, by comparing it with an object which all nations value—the commercial marine. The commercial tonnage of the United States,

In 1840, was 2,180,764 tons.

“ 1850, “ 3,535,454 “

“ 1860, “ 5,358,808 “

At \$50 per ton, which is a full estimate, the whole pecuniary value of the 5,358,808 tons, embracing all our commercial fleets on the oceans and the lakes and the rivers, and numbering nearly thirty thousand vessels, would be but \$267,940,000; whereas the increase in the pecuniary value of the States under consideration, in each year of the last decade, was \$281,000,000. Five years increase would purchase every commercial vessel in the Christian world.

But the census discloses another very important feature in respect to these interior States, of far higher interest to the statisticians, and especially to the statesmen of Europe, than any which has yet been noticed, in their vast and rapidly increasing capacity to supply food, both vegetable and animal, cheaply and abundantly, to the increasing millions of the Old World. In the last decade, their cereal products increased from 309,950,295 bushels to 558,160,323 bushels, considerably exceeding the whole cereal product of England, and nearly, if not quite equal, to that of France. In the same period the

swine, who play a very important part in consuming the large surplus of Indian corn, increased in number from 8,536,182 to 11,039,352, and the cattle from 4,373,712 to 7,204,810. Thanks to steam and the railway, the herds of cattle who feed on the meadows of the Upper Mississippi are now carried in four days, through eighteen degrees of longitude, to the slaughter-houses on the Atlantic.

It is difficult to furnish any visible or adequate measure for a mass of cereals so enormous as 558 millions of bushels. About one-fifth of the whole descends the chain of lakes on which 1,300 vessels are constantly employed in the season of navigation. About one-seventh of the whole finds its way to the ocean, through the Erie Canal, which has already been once enlarged for the purpose of passing vessels of two hundred tons, and is now under survey by the State of New York, for a second enlargement to pass vessels of five hundred tons. The vessels, called "canal-boats," now navigating the canal, exceed five thousand in number, and if placed in line, would be more than eighty miles in length.

The barrels of wheat and flour alone, carried by the canal to the Hudson river, were in

1842 .....	1,146,292
1852 .....	3,937,366
1862 .....	7,516,397

A similar enlargement is also proposed for the canal connect-Lake Michigan with the Mississippi river. When both the works are completed, a barrel of flour can be carried from St. Louis to New York, nearly half across the Continent, for fifty cents, or a ton from the Iron Mountain of Missouri for five dollars. The moderate portion of the cereals that descends the Lakes, if placed in barrels of five bushels each, and side by side, would form a line five thousand miles long. The whole crop,

if placed in barrels, would encircle the globe. Such is its present magnitude. We leave it to statistical science to discern and truly estimate the future. One result is, at all events, apparent. A general famine is now impossible; for America, if necessary, can feed Europe for centuries to come. Let the statesman and the philanthropist ponder well the magnitude of the fact and all its far-reaching consequences, political, social, and moral, in the increased industry, the increased happiness, and the assured peace of the world.

IV. The great metalliferous region of the American Union, is found between the Missouri river and the Pacific Ocean. This grand division of the Republic embraces a little more than half of its whole continental breadth. Portland, in Maine, is in the meridian  $70^{\circ}$  west from Greenwich; Leavenworth, on the Missouri river, in  $95^{\circ}$ ; and San Francisco, on the Pacific, in  $123^{\circ}$ . By these continental landmarks the Western or metalliferous section is found to embrace  $28^{\circ}$ , and the Eastern division between the Missouri and the Atlantic at Portland,  $25^{\circ}$  of our total territorial breadth of  $53^{\circ}$  of longitude.

It has been the principal work and office of the American people, since the foundation of their Government, to carry the machinery of civilization westward from the Atlantic to the Missouri, the great confluent of the Mississippi. So far as the means of rapid inter-communication are concerned, the work may be said to be accomplished, for a locomotive engine can now run without interruption, from Portland to the Missouri, striking it at St. Joseph just below the 40th parallel of latitude. In the twenty years preceding 1860, a net-work of railways, 31,193 miles in length, was constructed, having the terminus of the most western link on the Missouri river. The total cost was \$1,151,560,829, of which \$850,900,681 was expended in the decade between 1850 and 1860.



The American Government and people had become aware of the great pecuniary, commercial and political results of connecting the ocean with the food-producing interior, by adequate steam communications. But the higher and more difficult problem was then presented, of repeating the effort on a scale still more grand and continental; of winning victories still more arduous over Nature; of encountering and subduing the massive, mountain ranges interposed by the prolongation of the Cordilleras of our sister continent through the centre of North America, rising, even at their lowest points of depression, far above the highest peaks of the Atlantic States.

The Government, feeling the vital national importance of closely connecting the States of the Atlantic and of the Mississippi with the Pacific with all practicable despatch, has vigorously exerted its power. On the 1st of July, 1862, nearly fifteen months after the outbreak of the existing insurrection, and notwithstanding the necessity of calling into the field more than half a million of men to enforce the national authority, Congress passed the act for incorporating "the Union Pacific Railway Company," and appropriated \$66,000,000 in the bonds of the United States, with large grants of land, to aid the work, directing it to be commenced at the 100th meridian of longitude, but with four branches extending eastward to the Missouri river. The necessary surveys across the mountain ranges, are now in active progress, and the construction of the Eastern Division leading westward from the mouth of the Kansas river on the Missouri, has actually commenced. The whole of that division, including that part of the line west of the 100th meridian to the foot of the "Rocky Mountains," is on a nearly level plain, and is singularly easy of construction. Its western end will strike the most prominent point of the auriferous regions in the territory of Colorado, where the annual product of gold, as stated in the official message of the territorial Governor, is from five to

ten millions of dollars. The gold is there extracted, by crushing machines, from the quartz, in which it is found extensively distributed, needing only the railway from the Missouri to cheaply carry the necessary miners with their machinery and supplies. The distance to that point will be about six hundred and fifty miles, which will be passed in twenty-eight hours. When completed, as it easily may be, within the next three years, it will open the way for such an exodus of miners as the country has not seen since the first discoveries in California, to which the American people rushed with such avidity, many of them circumnavigating Cape Horn to reach the scene of attraction.

Meanwhile, a corresponding movement has commenced on the Pacific, in vigorously prosecuting the construction of the railway eastward from the coast at or near San Francisco, which will cross the Sierra Nevada at an elevation of about 7,000 feet, on the Eastern line of California, in the 120th parallel of longitude, and there descend into the territory of Nevada at the rich silver mines of Washoe.

It is not yet possible to estimate with any accuracy the extent of these deposits of gold and silver, but they are already known to exist at very numerous localities in and between the Rocky Mountains and the Sierra Nevada, not to mention the rich quartz mining regions in California itself, which continue to pour out their volumes of gold to affect, whether for good or ill, the financial condition of the civilized world. During the last six months gold has been obtained in such quantities, from the sands of the Snake River and other confluents of the Columbia River, as to attract more than twenty thousand persons to that remote portion of our metalliferous interior. The products of those streams alone for the present year, are estimated at twenty millions of dollars.

The Commissioner of the General Land Office, in his official Report of the 29th December, 1862, states as follows:

“The great auriferous region of the United States, in the western portion of the Continent, stretches from the 49th degree of north latitude, and Puget Sound, to the 30° 30' parallel, and from the 102d degree of longitude west of Greenwich, to the Pacific Ocean, embracing portions of Dakota, Nebraska, Colorado, all of New Mexico, with Arizona, Utah, Nevada, California, Oregon and Washington Territories. It may be designated as comprising 17 degrees of latitude, or a breadth of eleven hundred miles, from North to South, and of nearly equal longitudinal extension, making an area of more than a million of square miles.

“This vast region is traversed from North to South, first, on the Pacific side, by the Sierra Nevada and Cascade Mountains, then by the Blue and Humboldt; on the East, by the double ranges of the Rocky Mountains, embracing the Wasatch and Wind River Chain, and the Sierra Madre, stretching longitudinally and in lateral spurs, crossed and linked together by intervening ridges, connecting the whole system by five principal ranges, dividing the country into an equal number of basins, each being nearly surrounded by mountains, and watered by mountain streams and snows, thereby interspersing this immense territory with bodies of agricultural lands, equal to the support not only of miners, but of a dense population.”

“These mountains,” he continues, “are literally stocked with minerals; gold and silver being interspersed in profusion over this immense surface, and daily brought to light by new discoveries.”

“In addition to the deposits of gold and silver, various sections of the whole region are rich in precious stones, marble,

gypsum, salt, tin, quicksilver, asphaltum, coal, iron, copper, lead, mineral and medicinal, thermal and cold springs and streams.”

“The yield of the precious metals alone of this region will not fall below one hundred millions of dollars the present year, and it will augment with the increase of population for centuries to come.”

“Within ten years the annual product of these mines will reach two hundred millions of dollars in the precious metals, and in coal, iron, tin, lead, quicksilver and copper, half that sum.”

He proposes to subject these minerals to a Government tax of eight per cent., and counts upon a revenue from this source of twenty-five millions per annum, almost immediately, and upon a proportionate increase in the future. He adds that, “with an amount of labor relatively equal to that expended in California, applied to the gold fields already known to exist outside of that State, the production of this year, including that of California, would exceed four hundred millions.” “In a word,” says he, “the value of these mines is absolutely incalculable.”

From the documents and other evidences now before the International Statistical Congress, it must be apparent that the metalliferous regions of the United States of America are destined, sooner or later, to add materially to the supply of the precious metals, and thereby to affect the currency of the world, especially if taken in connection with the capacity of the auriferous regions of Russia, Australia, and British America, and the possibility of increased activity in the mines of Mexico.

The undersigned would, therefore, respectfully beg leave to conclude the present Report with the suggestion, that a Commission be instituted by the body now assembled, with autho-

rity to collect such facts as may be gathered from authentic sources, in respect to the probable future production of gold and silver, and to present them for consideration to the International Statistical Congress at the next or some future session.

Berlin, September 11th, 1863.

S. B. RUGGLES.

## NOTE.

Shortly before the adjournment, at Berlin, of the International Statistical Congress, a question arose of considerable interest in respect to their next place of meeting, in the year 1865 or 1866. Several of the Delegates, and especially from Southern Europe, urged the claims of Turin, in Italy, while others advocated Berne, in Switzerland. In participating in this debate, the undersigned adverted to the fact, that the preceding sessions had been held at Brussels, at Paris, at Vienna, and at London, and the then present session at Berlin; all in the capitals of the older nations of Europe, of mature growth, within fixed and definite limits, and presenting statistical features correspondingly fixed and definite; and that the time had come for the Statistical Congress to convene in one of the new and more progressive nations. In that view, he supported the claim of Russia, as being a nation at once old and new, furnishing the statistics not only of an established Power, but of a rapidly expanding Continental Empire, rendered still more interesting by its recent comprehensive and truly imperial measure of emancipating, at a single stroke, and raising to the dignity of freemen and landholders, many millions of its people.

According to usage in preceding Congresses, the selection of the next place of meeting, devolves on a local committee at Berlin, after generally gathering the opinions of members; but from the feeling manifested in behalf of Russia, it is believed that the next Congress will convene at St. Petersburg.


Soon after the adjournment of the Congress at Berlin, the undersigned proceeded to Russia, for the purpose, as stated in his communication of ~~the 14th~~ of September, of obtaining trust-

worthy statistics of its past and present product of gold and silver. Through the courtesy of eminent individuals, officially connected with the Imperial Government, he was enabled to collect very full and satisfactory details of the products of those metals, and especially in the Asiatic portions of the Empire. Through the same facilities, he also obtained statistical information of peculiar interest to the United States, in respect to the export of cereals from the great, central, agricultural interior of Russia, so strikingly resembling in geographical development and relative position, the central, food-producing interior of the American Union. On his way homeward, through Germany and Holland, he was also enabled to collect accurate information in respect to the commerce of those countries in food, both vegetable and animal; as a branch of a general inquiry to ascertain statistically the comparative condition of the "feeding" and of the "fed" nations of Europe and America. He has also taken measures for prosecuting inquiries in London, not yet fully completed, in respect to the product of gold and silver in Australia, New-Zealand and British America. The results, properly collated and condensed, will be duly transmitted to the Government of the United States.

Feb. 24, 1864.

S. B. RUGGLES.

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